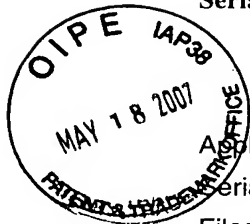


Customer No. 24498  
Serial No.: 10/556,834

PATENT  
PU030152



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Cristina Gomila et al.  
Serial No. : 10/556,834  
Filed : November 15, 2005  
For : METHOD AND APPARATUS FOR REPRESENTING IMAGE  
: GRANULARITY BY ONE OR MORE PARAMETERS  
Examiner : Not Yet Assigned  
Art Unit : 1756

INFORMATION DISCLOSURE STATEMENT

- ☒ 1 Pursuant to 37 CFR 1.97(b)  
[within 3 months of filing or prior to 1st Office Action]  
☐ 2 Pursuant to 37 CFR 1.97(c)  
[before Final Office Action or Allowance]  
☐ 3 Pursuant to 37 CFR 1.97(d)  
[after Final Office Action or Allowance, but prior to payment of Issue Fee]]

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Sir:

The following are submitted in the above-identified application in compliance with 37 CFR 1.97 & 1.98:

☒ 4 A list of documents on form PTO/SB/08a and/or PTO/SB/08b together with copies of each identified document and a translation or a concise explanation of each non-English language document is enclosed herewith.

This paper is submitted in accordance with:

- ☒ 5 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]  
☐ 6 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and  
[ ] (a) The required certification made in item 8(a) below; **OR**  
[ ] (b) The \$180.00 fee specified in 37 CFR 1.17(p) for submission of this Information Disclosure Statement is authorized in item 9 below.  
☐ 7 37 CFR 1.97(d): [after Final Office Action or Allowance, but prior to payment of Issue Fee]; and  
[ ] (a) The required Certification made in item 8(a) below; **AND**  
[ ] (b) The \$180.00 fee specified in 37 CFR 1.17(p) for submission of this Information Disclosure Statement is authorized in item 9 below.



☐ 8 Certification

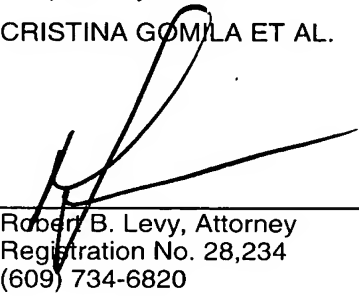
- ☐ (a) Each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
- ☐ (b) No item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing this document after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than three (3) months prior to the filing of this Statement.

☒ 9 Please charge the applicable fees associated with the submittal of this Information Disclosure Statement to Deposit Account No. 07-0832. An original and one (1) copy of this document is enclosed.

Respectfully submitted,

CRISTINA GOMILA ET AL.

By:

  
Robert B. Levy, Attorney  
Registration No. 28,234  
(609) 734-6820

THOMSON Licensing LLC  
Patent Operations  
P.O. Box 5312  
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Substitute for form 1449A/PTO			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Application Number</b>	10/556834	
			<b>Filing Date</b>	NOVEMBER 15, 2005	
			<b>First Named Inventor</b>	CRISTINA GOMILA ET AL.	
			<b>Group Art Unit</b>	1756	
			<b>Examiner Name</b>		
<b>Sheet</b>	1	of	3	<b>Attorney Docket Number</b>	PU030152

U.S. PATENT DOCUMENTS						
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		Number	Kind Code <sup>2</sup> (if known)			
		US20020034337		SHEKTER	03-21-2002	
		US4935816		FABER	06-19-1990	
		US5140414		MOWRY	08-18-1992	
		US5335013		FABER	08-02-1994	
		US5374954		MOWRY	12-20-1994	
		US5406326		MOWRY	04-11-1995	
		US5471572		BUCHNER ET AL.	11-28-1995	
		US5475425		PRZYBORSKI ET AL.	12-12-1995	
		US5629769		COOKINGHAM ET AL.	05-13-1997	
		US5641596		GRAY ET AL.	06-24-1997	
		US5687011		MOWRY	11-11-1997	
		US5709972		COOKINGHAM ET AL.	01-20-1998	
		US5767860		ZIMMER ET AL.	06-16-1998	
		US5831673		PRZYBORSKI ET AL.	11-03-1998	
		US5457491		MOWRY	10-10-1995	

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
		EP	EP0622000		FABER	10-15-1992		
		EP	EP1175091		PRZYBORSKI ET AL.	01-23-2002		
		EP	EP1215624		EASTMAN KODAK COMPAN	06-19-2002		
		WO	WO0146992		BROWN UNIVERSITY RESEA	06-28-2001		
		WO	WO0177871		DEMOGRAFX	10-18-2001		
		WO	WO2004104931		THOMSON LICENSING S.A.	12-02-2004		
		WO	WO9314591		FABER	07-22-1993		
		WO	WO9520292		PRZYBORSKI ET AL.	07-27-1995		
		WO	WO9722204		PRZYBORSKI	06-19-1997		

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				Application Number	10/556834
				Filing Date	NOVEMBER 15, 2005
				First Named Inventor	CRISTINA GOMILA ET AL.
				Group Art Unit	1756
				Examiner Name	
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		, AL-SHAYKH ET AL, "Lossy Compression of Images Corrupted by Film Grain Noise," School of Electrical and Computer Engineering, 1996 IEEE.	
		, AL-SHAYKH ET AL, "Restoration of Lossy Compressed Noisy Images," IEEE Transactions on Image Processing, Vol. 8, No. 10, October 1999.	
		, AL-SHAYKH, "Lossy Compression of Noisy Images," IEEE Transactions on Image Processing, Vol. 7, No. 12, December 1998.	
		, BRIGHTWELL ET AL, "Automated Correction of Film Unsteadiness, Dirt and Grain," International Broadcasting Convention, September 16-20, 1994, Conference Publication No. 397, IEE, 1994.	
		, CAMPISI ET AL, "Signal-Dependent Film Grain Noise Generation Using Homomorphic Adaptive Filtering," IEE Proceedings, Image Signal Process, Vol. 147, No. 3, June 2000.	
		, ZHAO ET AL, "Constant Quality Rate Control for Streaming MPEG-4 Fgs. Video," Integrated Media Systems Center and Department of Electrical Engineering, University of Southern California, 2000 IEEE.	
		, CHAVEL ET AL, "Film Grain Noise in Partially Coherent Imaging," Optical Engineering, Vol. 19, No. 3, May-June 1980.	
		, FISCHER ET AL, "Image Sharpening Using Permutation Weighted Medians," Department of Electrical Engineering, University of Delaware, fischer@ee.udel.edu, paredesj@ee.udel.edu, arce@ee.udel.edu.	
		, ILLINGWORTH ET AL, "Vision, Image and Signal Processing," The Institution of Electrical Engineers, IEE Proceedings, June 2000, Vol. 147, No. 3.	
		, MCLEAN ET AL, "Telecine Noise Reduction," XP-002285972, 2001 The Institute of Electrical Engineers.	
		, OKTEM ET AL, "Transform Domain Algorithm for Reducing Effect of Film-Grain Noise in Image Compression," Electronics Letters, October 14, 1999, Vol. 35, No. 21.	

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Sheet	3	of	3	Attorney Docket Number	PU030152

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		, PRADES-NEBOT ET AL, "Rate Control for Fully Fine-Grained Scalable Video Coders," Visual Communications and Image Processing 2002, Proceedings of SPIE, Vol. 4671 (2002), SPIE 0277-786X/02.	
		, SCHAAR ET AL, "Fine-Granularity-Scalability for Wireless Video and Scalable Storage," Visual Communications and Image Processing 2002, Proceedings of SPIE, Vol. 4671 (2002) SPIE 0277-786X/02.	
		, SHAHNAZ ET AL, "Image Compression in Signal-Dependent Noise," Applied Optics, Vol. 38, No. 26, September 10, 1999.	
		, YAN ET AL, "Efficient Video Coding with Hybrid Spatial and Fine-Grain SNR Scalabilities," Department of Electronic Engineering, Beijing Institute of Technology, China.	
		, YAN ET AL, "Film Grain Noise Removal and Generation for Color Images," Department Electrical and Computer Engineers, University of Toronto, dimitris@comm.toronto.edu.	
		, YAN ET AL, "Signal-Dependent Film Grain Noise Removal and Generation Based on Higher-Order Statistics," University of Toronto, Department of Electrical and Computer Engineering, dimitris@comm.toronto.edu, 1997 IEEE.	
		, YOSHIDA, "Go with the Grain, Film R&D Chief Urges, for Art's Sake," EE Times, February 07, 2005.	
		, ZHANG ET AL, "Constant Quality Constrained Rate Allocation for FGS Video Coded Bitstreams," Visual Communications and Image Processing 2002, Proceedings of SPIE, Vol. 4671 (2002) SPIE 0277-786X/02.	
		PENG ET AL, "Adaptive Frequency Weighting for Fine-Granularity-Scalability," Visual Communications and Image Processing 2002, Proceedings of SPIE, Vol. 4671 (2002) SPIE 0277-786X/02, pp. 840-849.	

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